

## CURRICULUM VITAE

### Professor Richard Marais, PhD, FMedSci

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#### Current Appointments

- 2012 - Director & Senior Group Leader, Molecular Oncology Group, CRUK Manchester Institute
- 2012 - Professor of Molecular Oncology, University of Manchester
- 2014 - Centre Co-Lead, CRUK Lung Cancer Centre of Excellence
- 2014 - Scientific Co-Director Belfast-Manchester Movember Centre of Excellence

#### Previous Appointments

- 2011 - 2012 Division Head, Division of Cancer Biology, The Institute of Cancer Research, London
- 2008 - 2011 Deputy Chair, Section of Cell and Molecular Biology, The Institute of Cancer Research, London
- 2007 - 2012 Professor of Molecular Oncology, The Institute of Cancer Research, London
- 1998 - 2012 Team Leader, Signal Transduction Team, The Institute of Cancer Research, London

#### Education

- 1989 PhD: Comparative Studies on Protein Kinase C Isotypes, Ludwig Institute for Cancer Research, London
- 1985 BSc in Genetics and Microbiology: 1st Class Hons, University College, London

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#### Awards and Prizes

- 2017 Society for Melanoma Research (SMR) Outstanding Research Award
- 2017 ARC Léopold Griffuel Award in Translational and Clinical Research
- 2016 European Society for Pigment Cell Research Fritz Anders Medal
- 2016 Worldwide Cancer Research Colin Thomson Memorial Medal
- 2016 The University of Manchester Researcher of the Year Award
- 2015 Elected Member of the Academia Europaea
- 2014 The Dr Melvin L & Dr Sylvia F Griem Lectureship in Molecular and Cellular Oncology. The University of Chicago Comprehensive Cancer Center
- 2012 AACR Team Science Award. To The Institute of Cancer Research (ICR) and Royal Marsden Hospital: Cancer Research UK Cancer Therapeutics Unit and Drug Development Units
- 2011 Society for Melanoma Research Estella Medrano Memorial Award. For outstanding contributions to melanoma research
- 2009 Elected EMBO Member
- 2009 Elected Fellow of the European Academy of Cancer Sciences
- 2007 Elected Fellow of the Academy of Medical Sciences

#### Current Committees

- 2016 - 2018 Past-President, The European Association for Cancer Research
- 2015 - 2018 Board of Directors, American Association for Cancer Research

#### Selected Editorial Boards

Cancer Research, Cancer Cell, ESMO Open, Cancer Discovery, Molecular & Cellular Oncology Pigment Cell and Melanoma Research, Molecular Oncology, Carcinogenesis, AACR Publications Committee member

#### Selected Meetings Steering Committees

- 2018 Organising Committee: Society for Melanoma Research Congress, Manchester
- 2017 Scientific Co-Chair: ESMO 2017 Congress, Madrid, Spain.
- 2016 Scientific Program Committee Member: AACR 2016 Annual Meeting, New Orleans, LA.
- 2016 Chair: EACR24, the European Association for Cancer Research biannual meeting, Manchester, UK.
- 2014 Chair: NCRI 10<sup>th</sup> Cancer Conference, Liverpool, UK.

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#### Selected Publications (Over 150 Peer-Reviewed Papers)

- **Marais R**, Wynne J and Treisman R (1993). The SRF accessory protein Elk-1 contains a growth factor-regulated transcriptional activation domain. **Cell**, 73: 381-93.
- **Marais R**, Light Y, Paterson HF and Marshall CJ (1995). Ras recruits Raf-1 to the plasma membrane for activation by tyrosine phosphorylation. **EMBO Journal**, 14: 3136-45.
- **Marais R**, Light Y, Paterson HF, Mason CS and Marshall CJ (1997). Differential regulation of Raf-1, A-Raf, and B-Raf by oncogenic Ras and tyrosine kinases. **Journal of Biological Chemistry**, 272: 4378-83.

- **Marais R**, Light Y, Mason C, Paterson H and Marshall CJ (1998). Requirement of Ras-GTP-Raf complexes for activation of Raf-1 by protein kinase C. **Science**, 280: 109-112.
- Mason CS, Springer CJ, Cooper R, Superti-Furga GT, Marshall CJ, **Marais R** (1999). Serine and tyrosine phosphorylations cooperate in Raf-1, but not B-Raf activation. **EMBO Journal**, 18: 2137-2148.
- Davies H, Bignell GR, Cox C, Stephens P, Edkins S, Clegg S, Teague J, Woffendin H, Garnett MJ, Bottomley W, Davis N, Dicks E, Ewing R, Floyd Y, Gray K, Hall S, Hawes R, Hughes J, Kosmidou V, Menzies A, Mould C, Parker A, Stevens C, Watt S, Hooper S, Wilson R, Jayatilake H, Gusterson BA, Cooper C, Shipley J, Hargrave D, Pritchard-Jones K, Maitland N, Chenevix-Trench G, Riggins GJ, Bigner DD, Palmieri G, Cossu A, Flanagan A, Nicholson A, Ho JWC, Leung SY, Yuen ST, Weber BL, Seigler HF, Darrow TL, Paterson H, **Marais R**, Marshall CJ, Wooster R, Stratton MR and Futreal PA (2002). Mutations of the BRAF gene in human cancer. **Nature**, 417: 949-954.
- Wan PTC\*, Garnett MJ\*, Roe SM, Lee S, Niculescu-Duvaz D, Good VM, Jones MC, The Cancer Genome Project, Marshall CJ, Springer CJ, Barford D# and **Marais R#** (2004). Mechanism of activation of the RAF-ERK signaling pathway by oncogenic mutations of B-RAF. **Cell**, 116: 855-867.
- Wellbrock C, Ogilvie L, Hedley D, Karasarides M, Martin J, Niculescu-Duvaz D, Springer C and **Marais R** (2004). V599EB-RAF is an oncogene in melanocytes. **Cancer Research**, 64: 2338-2342.
- Garnett MJ, Rana S, Paterson H, Barford D and **Marais R** (2005). WTB-RAF activates C-RAF through RAS-induced heterodimerisation, whereas mutant B-RAF heterodimerises with and activates C-RAF in a RAS-independent manner. **Molecular Cell**, 20: 963-969.
- Dhomen N, Reis-Filho JS, Da Rocha Dias S, Hayward R, Savage K, Delmas V, Larue L, Pritchard C and **Marais R** (2009). Oncogenic Braf induces melanocyte senescence and melanoma in mice. **Cancer Cell**, 15: 294-303.
- Heidorn SJ, Milagre C, Whittaker S, Nourry A, Niculescu-Duvas I, Dhomen N, Hussain J, Reis-Filho JS, Springer CJ, Pritchard C and **Marais R** (2010). Kinase-dead BRAF and oncogenic RAS cooperate to drive tumor progression through CRAF. **Cell**, 140: 209-221.
- Whittaker S, Kirk R, Hayward R, Zambon A, Viros A, Cantarino N, Affolter A, Nourry A, Niculescu-Duvaz D, Springer C and **Marais R** (2010). Gatekeeper mutations mediate resistance to BRAF targeted therapies. **Science Translational Medicine**, 2: 35-41.
- Arozarena I, Sanchez-Laorden B, Packer L, Hidalgo-Carcedo C, Hayward R, Viros A, Sahai E and **Marais R** (2011). Oncogenic BRAF induces melanoma cell invasion by down-regulating the cGMP-specific phosphodiesterase PDE5A. **Cancer Cell**, 19: 45-57.
- Packer LM, Rana S, Hayward R, O'Hare T, Eide CA, Rebocho A, Heidorn S, Zabriskie MS, Niculescu-Duvaz I, Druker BJ, Springer C and **Marais R** (2011). Nilotinib and MEK inhibitors induce synthetic lethality through paradoxical activation of RAF in drug-resistant chronic myeloid leukemia. **Cancer Cell**, 20: 715-727.
- Su F\*, Viros A\*, Milagre C\*, Trunzer K, Bollag C, Spleiss O, Reis-Filho JS, Kong X, Koya RC, Flaherty KT, Chapman PB, Jung Kim M, Hayward F, Martin M, Yang H, Wang Q, Hilton H, Hang JS, Noe J, Lambros M, Geyer F, Dhomen N, Niculescu-Duvaz I, Zambon A, Niculescu-Duvaz D, Preece N, Robert L, Otte NJ, Mok S, Kee D, Ma Y, Zhang C, Habets G, Burton EA, Wong B, Nguyen H, Kockx M, Andries L, Lestini B, Nolop KB, Lee RJ, Joe AK, Troy JL, Gonzalez F, Hutson TE, Puzanov I, Chmielowski B, Springer CJ, McArthur GA, Sosman JA, Lo RS, Ribas A# and **Marais R#** (2012). RAS mutations in cutaneous squamous cell carcinomas with BRAF inhibitors. **The New England Journal of Medicine**, 366: 207-215.
- Girotti MR, Pedersen M, Sanchez-Laorden B, Viros A, Turajlic S, Niculescu-Duvaz D, Zambon A, Sinclair J, Hayes A, Gore M, Lorigan P, Springer C, Larkin J, Jorgensen C and **Marais R**. (2013) Inhibiting EGF receptor or SRC family kinase signaling overcomes BRAF inhibitor resistance in melanoma. **Cancer Discovery**, 3: 158-167.
- Furney SJ, Pedersen M, Gentien D, Dumont AG, Rapinat A, Desjardins L, Turajlic S, Piperno-Neumann S, de la Grange P, Roman-Roman S, Stern M.-H.#, and **Marais R#** (2013). SF3B1 mutations are associated with alternative splicing in uveal melanoma. **Cancer Discovery**, 3: 1122-1129.
- Sanchez-Laorden B, Viros A, Girotti MR, Pedersen M, Saturno G, Zambon A, Niculescu-Duvaz D, Turajlic S, Hayes A, Gore A, Larkin J, Lorigan P, Cook M, Springer C and **Marais R** (2014). BRAF inhibitors induce metastasis in RAS mutant or inhibitor-resistant melanoma cells by reactivating MEK and ERK signaling. **Science Signaling**, 7 (318): ra30
- Viros A, Sanchez-Laorden B, Pedersen M, Furney SJ, Rae J, Hogan K, Ejima S, Girotti MR, Cook M, Dhomen N and **Marais R** (2014). Ultraviolet radiation accelerates BRAF-driven melanomagenesis by targeting TP53. **Nature**, 511: 478-482
- Girotti MR, Lopes F, Preece N, Niculescu-Duvaz D, Zambon A, Davies L, Whittaker S, Saturno G, Viros A, Pedersen M, Suijkerbuijk BMJM, Menard D, McLeary R, Johnson L, Fish L, Ejima S, Sanchez-Laorden B, Hohloch J, Carragher N, Macleod K, Ashton G, Marusiak AA, Fusi A, Brognard J, Frame M, Lorigan P, **Marais R#** and Springer C# (2015). Paradox-breaking novel RAF inhibitors that also target SRC are effective in drug-resistant BRAF mutant melanoma. **Cancer Cell**, 27:85-96.